respectfully requested in light of these amendments and the following remarks.

I. Rejection of Claims Under 35 U.S.C. §102

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Japanese publication 4-12853. It is suggested that Japanese publication 4-12853 discloses a doctor blade for squeezing ink on a printing plate comprising a steel blade covered with a hard chromium plating layer.

Claims 8-10 are further rejected under 35 U.S.C. §102 as being anticipated by Japanese publication 63-25038, which is suggested to disclose a doctor blade adapted to an ink supply apparatus comprising a steel blade covered with a hard chromium plating layer.

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Japanese publication 3-64595, which is suggested to disclose a blade for printing coating paper comprising a steel blade covered with a chromium electroplated layer.

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Japanese publication 06-257095, which is suggested

to disclose a doctor blade for a paper machine comprising a steel blade covered with a chromium plating layer.

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Lundbye(U.S. Patent 2,313,830), which is suggested to disclose a doctor blade for printing comprising a steel blade covered with a chromium plating layer.

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Lundbye (U.S. Patent 2,361,554), which is suggested to disclose a doctor blade for printing comprising a steel blade covered with a chromium plating layer.

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Carlsen (U.S. Patent 2,404,689), which is suggested to disclose a doctor blade for printing comprising a steel blade covered with a chromium plating layer.

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Stalmuke, which is suggested to disclose a blade coater for the paper industry comprising a steel blade covered with a cadmium plating layer.

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Lindblad (U.S. Patent 4,970,560), which is suggested to disclose a cleaning blade for electrophotographic

processes comprising a steel blade covered with a chromium plating layer.

Claims 8-10 are rejected under 35 U.S.C. §102 as being anticipated by Nomura (U.S. Patent 6,059,881), which is suggested to disclose a coater blade for coating processes comprising a steel blade covered with a chromium plating layer.

In an earnest attempt to clarify the invention and present the claims in form for allowance, claims 9-10 have been canceled and claim 8 has been amended to recite that the protective layer is electroless nickel which is applied to the entire blade-shaped substrate base. Support for this amendment is found throughout the specification and at page 3, lines 28-31. Claim 8 has been further amended to clarify that said blade-shaped substrate base is carbon strip steel, as supported at page 4, line 12. None of the prior art recited teach the protective layer as electroless nickel. In contrast to the present invention, and as acknowledged by the Examiner, all of the recited art describes a cadmium or chromium-plated protective layer on the blades. Further, Applicants' method makes clear that the protective layer is applied to <u>all</u> areas of the blade-shaped substrate and that the blade-shaped substrate base is carbon strip steel. None of the prior art of record teach a carbon strip steel base which is

entirely protected with a layer of electroless nickel. Thus, none of the cited art anticipates the invention.

In accordance with MPEP § 2121.01, the test in determining that quantum of prior art disclosure which is necessary to declare an applicant's invention "not novel" or "anticipated" within section 102, is whether a reference contains an "enabling disclosure". *In re Hoeksema*, 399 F.2d 269(CCPA 1968). A reference contains an "enabling disclosure" if the public was in possession of the claimed invention before the date of invention. The recited art does not teach or suggest the limitations of claim 8, as amended, as such it can not be held to anticipate the present invention.

Withdrawal of this rejection is respectfully requested.

II. Rejection of Claims Under 35 U.S.C. §103

The Examiner has rejected claims 1-7 under 35 U.S.C. §103(a) as being unpatentable over Japanese publication 4-12853, Japanese publication 63-25038, Japanese publication 3-64595, Japanese publication 06-257095, Lundbye (U.S. Patent 2,313,830), Lundbye (U.S. Patent 2,361,554), Carlsen, (U.S. Patent 2,404,689), Stalmuke, Lindblad (U.S. Patent 4,970,560), and Nomura (U.S.

Patent 6,059,881) each in view of Mahoney (U.S. Patent 3,810,588).

The Examiner suggests that the recited art differs from the present invention in that they do not disclose that their blades are coiled. The Examiner further suggests that Mahoney clearly shows that it is well recognized in industry that doctor blade stock is more economical if supplied in coiled form. The Examiner suggests that in view of Mahoney, it would have been obvious to one skilled in the art to supply the coated blades of Japanese publication 4-12853, Japanese publication 63-25038, Japanese publication 3-64595, Japanese publication 06-257095, Lundbye (U.S. Patent 2,313,830), Lundbye (U.S. Patent 2,361,554), Carlsen, (U.S. Patent 2,404,689), Stalmuke, Lindblad (U.S. Patent 4,970,560), and Nomura (U.S. Patent 6,059,881) in coiled form because Mahoney shows that this form of blade stock is more economical. Applicants respectfully disagree.

Mahoney teaches a dispensing container with a series of rollers allowing a coil of a resilient edged metal band to be formed therein, see column 1, lines 6-8. Mahoney does not teach or suggest that the container would be useful for a blade that has a protective layer applied to all areas of the blade-shaped substrate.

In an earnest attempt to clarify the present invention and present the claims in form for allowance, claims 2-5 have been canceled and claim 1 has been amended to clarify that all areas of the carbon strip steel blade-shaped substrate are coated with a protective layer of electroless nickel and coiled. Support for this amendment is found throughout the specification and especially at page 3, lines 28-31 and page 4, line 12.

To establish a *prima facie* case of obviousness under 35 U.S.C. 103(a) three basic criteria must be met. MPEP § 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art must teach or suggest all of the claim limitations.

As set forth above, none of the recited art teaches or suggests an electroless nickel protective layer. Further, in the present invention the <u>entire</u> blade-shaped substrate is coated with the electroless nickel and coiled. There is no teaching, suggestion or motivation provided by the recited art to combine the references as suggested by the Examiner. Even if the references were combined they would not yield the present

invention. For example, if one of skill coated the entire blade of Japanese publication 4-12853, Japanese publication 63-25038, Japanese publication 3-64595, Japanese publication 06-257095, Lundbye (U.S. Patent 2,313,830), Lundbye (U.S. Patent 2,361,554), Carlsen, (U.S. Patent 2,404,689), Stalmuke, Lindblad (U.S. Patent 4,970,560), or Nomura (U.S. Patent 6,059,881) with the cadmium or chromium platings taught, the blade would not bend or flex, and could not be rolled or coiled as required by the present invention as the plating would lose its bond to the substrate or delaminate. Furthermore, the electroless nickel coating of the present invention is not a simple substitute for the coatings taught by the prior art. The electroless nickel of the present invention does not require electrical energy to adhere to the substrate, the electroless nickel better conforms to the blade-substrate shaped base, has a better friction resistance and increased hardness over the prior art coatings.

Applicants respectfully submit that the cited art fails to teach or suggest all of the limitations of the present invention.

Withdrawal of this rejection is respectfully requested.

III. Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made".

Respectfully submitted,

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Date: **March 4, 2003**

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MARKED UP VERSION TO SHOW CHANGES MADE

In the claims:

Claims 2-5 and 9-10 have been canceled.

Claims 1 and 8 have been amended as follows:

1. (Twice amended) A friction resistant blade comprising a blade shaped substrate base with an edge and a protective layer applied to ~~said~~ all areas of the blade shaped substrate wherein the substrate base is comprised of carbon strip steel and coiled and further wherein said protective layer is electroless nickel.

8. (Amended) A method of producing a friction resistant blade comprising applying a protective layer to a blade-shaped substrate base, said layer being applied to all areas of the blade-shaped substrate ~~which contact coatings used in papermaking, board coating, paper machine maintenance and printing applications~~ wherein said protective layer is electroless nickel, and wherein said blade-shaped substrate base is carbon strip steel.